

What is claimed is:

1. A system for remote maintenance management of equipment by a maintenance company, said system comprising local monitoring units
5 installed near and associated with a least one piece of said equipment, and a maintenance company calculator connected to said local monitoring units by means of a transmission network and comprising means for receiving, storing and processing all information transmitted by said local monitoring units, said local monitoring units comprising:
 - 10 identification means for identifying a technician when starting an operation on the associated piece of said equipment,
command means for allowing said maintenance technician identified using identification means, to signal a start and end event of said operation on the associated piece of said equipment,
15 time stamping means for time stamping said start and end events,
data entry means for introducing data describing work done during said operation performed by said identified technician,
data storage means for storing in the form of an electronic maintenance record file said data describing work done during said operation
20 on the associated piece of equipment in relation with identification information of the technician and timestamp information of the start and end events of the operation.
2. The system according to claim 1, wherein each local unit
25 further comprises means for performing measurements on the associated equipment in order to detect operation failures, and for transmitting the detected operation failures to the maintenance company calculator.
3. The system according to claim 1, wherein each local unit
30 further comprises means for transmitting to the maintenance company calculator information stored in said storage means regarding an operation following said operation on the associated equipment, said calculator including means for storing the operation information received.
- 35 4. The system according to claim 3, further comprising a second calculator for receiving from said local units the operation information

transmitted to the maintenance company calculator, said second calculator comprising means for storing the operation information received.

5 5. The system according to claim 4, wherein said second calculator is connected to a digital data transmission network and provides terminals connected to said network with access to the data stored in said storage means.

10 6. The system according to claim 1, wherein said identification means include an element chosen from the set including a keyboard for entering an identification code of the maintenance technician, reading systems with and without electronic key or smart card or magnetic card contacts, which store a technician identification code, and a biometric recognition system.

15 7. The system according to claim 1, wherein each local unit further comprises means for detecting a presence of a person in a maintenance area of the associated piece of said equipment, means for requesting the detected person to identify his/herself, and means for transmitting to the
20 maintenance company calculator an identification error message if the detected person is not identified using the identification means within a predefined period of time.

25 8. The system according to claim 7, further comprising telecommunication means for allowing a maintenance company to communicate with a technician normally in charge of maintaining a piece of said equipment following receipt of an identification error message transmitted by the local unit associated with said piece of said equipment.

30 9. The system according to claim 7, wherein said presence detection means comprises an element chosen from the set comprising an electrical contact whose status is modified when a person enters or leaves the equipment maintenance area, a movement detector, and a light detector of an electrical lighting in the maintenance area.

35 10. The system according to claim 1, wherein said data input

means for introducing a description of the work include an element chosen from the set comprising an input keyboard detachable or not from the local unit, an integrated keyboard in a command terminal that can be connected to the local unit through a fixed radio or infrared link, and a voice recognition system.

11. The system according to claim 1, wherein each local unit further comprises means for transmitting to the maintenance company calculator an identification error message if the detected person is not identified using the identification means within a predefined period of time.

12. The system according to claim 11 further comprising telecommunication means for allowing the maintenance company to communicate with the identified technician during an operation, after receiving an operation description data entry error message transmitted by a local unit.

13. The system according to claim 1, wherein at least some of said local units comprise means for locally or remotely querying content of said storage media storing said operation information.

14. The system according to claim 1, wherein the operation information stored in the storage media include for each operation at least one of the following items:

- operation start and end dates,
- identification data of the technician that performed the operation,
- an operation type,
- action or function or part codes of the equipment element,
- action type codes.

15. The system according to claim 3, wherein the maintenance company calculator further comprises means for querying, sorting, and analyzing the operation data stored in the storage media for all the equipment, in order to determine a maintenance status of each piece of said equipment, a maintenance company performance and a performance of each technician employed by said maintenance company.